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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,677	03/18/2004	Timothy G. Offerle	81095828FGT1910	2676
28549	7590	06/19/2007	EXAMINER	
Dickinson Wright PLLC			SCHWARTZ, CHRISTOPHER P	
38525 Woodward Avenue			ART UNIT	PAPER NUMBER
Suite 2000			3683	
Bloomfield Hills, MI 48304			MAIL DATE	DELIVERY MODE
			06/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/708,677	OFFERLE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Christopher P. Schwartz	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-30 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_.

*Christopher P. Schwartz*  
CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER

## DETAILED ACTION

1. Pursuant to 37 C.F.R. 1.981 prosecution of the application file has been reopened due to new prior art obtained by the examiner.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1 applicants claim on line 4 a method step of "determining a predicted position of the trailer..."

On the last two lines they then claim "displaying ... the predicted position of the trailer relative to the vehicle".

It becomes unclear whether the predicted position of the trailer on line 4 is a position relative to the vehicle.

Claim 12 contains a similar problem.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-27,29,30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto '760 in view of Fischer et al. '101.

Regarding claims 1,12,21 Okamoto discloses a parking assist system for backing of a vehicle and states in the abstract that "A vehicle image VI is superposed on a desired parking position of the vehicle in the rear area image FI, and a predicted vehicle route image TR1 is generated within the predetermined area based on a steering angle and an initial position of the vehicle, while an actual vehicle route image TR2 is generated based on actual steering angles and positions of the vehicle.". As discussed in col. 1 lines 40-43 this system uses a display screen. Note the "reverse direction signal" is generated when the vehicle is simply put into "reverse", via the transmission shift lever, i.e. transmission controller, at which point the rear-view picture is generated on the display screen.

Lacking in Okamoto is a specific discussion of using the system with a trailer.

The reference to Fischer et al. discusses in columns 9 and 10 that such parking assist systems (using an "optical display") can be used with trailers. See col. 9 lines 43-45. At the top of column 10 Fischer et al. states that the trailer angle between the vehicle and the trailer can be registered by means of trailer angle sensors known per se. On lines 4-7 of col. 10 Fischer et al. states that "during the driving maneuver, the steering wheel position which the driver has to set in order that the actually registered trailer angle  $B_{act}$  corresponds to the desired trailer angle  $B_{des}$  is displayed to the driver.". Fischer et al. Uses brake steer to bring the actual trailer angle into conformance with the desired trailer angle. See col. 9 lines 15-27 and col. 10 lines 13-20.

One having ordinary skill in the art at the time of the invention would have found it obvious to have modified the system of Okamoto to include the ability to park the vehicle while towing a trailer, as taught by Fischer et al., since many vehicles include the option of equipping them with a towing package and this modification would expand the capability of such a towing vehicle.

The limitations of the rest of the claims are taught by the combined teachings of the references above and what is well known in the art.

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto '760 in view of Fischer et al. '101, as applied to claim 21 above, and further in view of Yoshioka et al. '357.

Regarding claim 28 Okamoto '760, as modified, lacks using an ultrasonic sensor for the detection of a distance to an object.

Yoshioka et al. '357 teaches this at 27. Note the other devices taught in Yoshioka et al. to assist driver navigation.

One having ordinary skill in the art at the time of the invention would have found it obvious to have further modified Okamoto '760 with an ultrasonic sensor to aid in object detection and assist the driver in avoiding a collision with such when backing up the trailer.

8. Claims 1-27,29,30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. '101 in view of Okamoto '760,

Regarding claims 1-27,29,30 Fischer et al. '101 and Okamoto '760 are relied upon as above in that the device of Fischer et al. states in col. 9 lines 43-45 that system can be used with a trailer and that braking force is used to bring the actual trailer angle into conformance with a desired trailer angle.

Lacking in Fischer et al. is a specific discussion of sensing a current position of the trailer relative to the vehicle and, from this, determining a predicted position.

However, as previously explained, the reference to Okamoto teaches this known concept. See the abstract.

To have modified Fischer et al. with the concept taught by Okamoto would have been obvious to the ordinary skilled worker in the art as an obvious alternative equivalent means of determining the intended position of the trailer and displaying it to the driver on a display screen. This may make the parking of some types of trailers easier.

The limitations of the rest of the claims are taught by the combined teachings of the references above and what is well known in the art.

9. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. '101 in view of Okamoto '760 as applied to claim 21 above, and further in view of Yoshioka et al. '357.

Regarding claim 28 Fischer et al. '101, as modified, lacks using an ultrasonic sensor for the detection of a distance to an object.

Yoshioka et al. '357 teaches this at 27. Note the other devices taught in Yoshioka et al. to assist driver navigation.

One having ordinary skill in the art at the time of the invention would have found it obvious to have further modified Fischer et al. '101 with an ultrasonic sensor to aid in object detection and assist the driver in avoiding a collision with such when backing up the trailer.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please also review the U.S. publication to Shimizu et al. '916 since this reference also teaches using the current position/steering angle of the vehicle to determine a predicted position.

11. A Technology Center Director has approved the re-opening of prosecution in this application by signing below:

*Kathy Matecke*  
ACTING DIRECTOR  
TC 3600

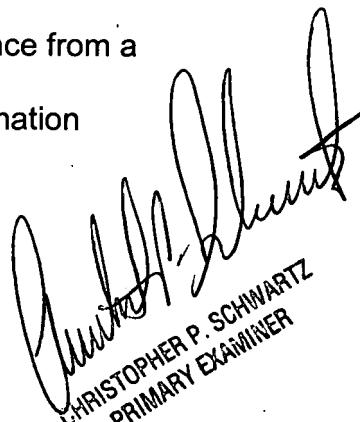
Art Unit: 3683

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Schwartz whose telephone number is 571-272-7123. The examiner can normally be reached on M-F 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cps  
6/5/07



CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER